PATENT RID0022-US

ABSTRACT OF THE DISCLOSURE

An electrical submersible pump runner having a core layer and a wear layer affixed to the

core layer. One embodiment of the invention provides an electrical submersible pump that

includes a motor section and a centrifugal pump section. A seal section and rotary gas separator

may also be included. The pump is powered by an electric cable that connects the pump, located

in a bore hole, to a power source on the surface. A thrust runner coated with a wear layer (e.g.,

polymer) is provided in the motor and/or seal section to reduce bearing temperature, provide

longer bearing life, reduce costs, and facilitate overhaul. The runner may also function as a

rotating up-thrust bearing when the runner is coated with a wear layer on one side that is formed

with a bearing geometry. In this case, the up-thrust bearing may be eliminated.

Document #: 1273067 v.1

20